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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,211	01/30/2001	Pramod G. Joisha	NWU-P005	4219

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3039 Calle De Las Estrella  
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EXAMINER

KANG, INSUN

ART UNIT	PAPER NUMBER
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2124

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/773,211

Applicant(s)

JOISHA ET AL.

Examiner

Insun Kang

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This action is in response to the application filed 1/30/2001.
2. Claims 1-9 are pending in the application.

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### *Specification*

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because the abstract is not in narrative form (1<sup>st</sup> and last sentences) and the language repeats information given in the title (1<sup>st</sup> sentence). Correction is required. See MPEP § 608.01(b).

5. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use

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thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

6. The abstract of the disclosure is objected to because the abstract compares the invention with the prior art (last sentence) and lacks a series of process steps.

Correction is required. See MPEP § 608.01(b).

### ***Drawings***

7. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 101***

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-3 are non-statutory because they are directed to a method without practical "acts" being performed in order to produce a "useful, concrete and tangible result." The claims merely recite a "method for array shape inferencing" in claim 1, a result of the method in claim 2 and the "highlights" of the method in claim 3. They do not set forth any active, positive steps in the methods or processes to accomplish "any new and useful" method for "array shape inferencing." Thus the claims represent functional descriptive material without practical actions leading to a concrete, tangible and useful result, and hence represent only abstract ideas. Therefore, the claims are non-statutory.

Claims 4-9 are non-statutory because they are directed to a data "representation" without recitation of a method or process that enabled their functionality to be realized. The claims merely recite a "representation," "framework" and "methodology" that are disembodied arrangements or compilations of data and do not recite a method or process to enable to generate the claimed data representation (framework or methodology). Although the claimed "representation" is carried out by the array shape inferencing method, the method is not recited as embodying the claimed representation. Thus the claims represent functional descriptive material that is not capable of producing a useful result, and hence represent only abstract ideas. Therefore, the claims are non-statutory.

***Claim Rejections - 35 USC § 112***

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 2-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "The method" in 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "The highlights of the method" in 9. There is insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitations "The representation" in 11 and "the individual shape-tuples" in 12. There is insufficient antecedent basis for these limitations in the claim.

Claim 5 recites the limitation "The representation" in 14. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitations "The representation," "the shape" and "the MATLAB expression" in 17-8. There is insufficient antecedent basis for these limitations in the claim.

Claim 7 recites the limitations "the current state-of-art," "the shadow variable scheme," "the representation" and "the array" in 1-3. There is insufficient antecedent basis for these limitations in the claim.

Also, the terms "Unlike" and "i.e." in claim 7 are a relative term, which renders the claim indefinite. The terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim 8 recites the limitation "The framework" in 5. There is insufficient antecedent basis for this limitation in the claim.

Claim 9 recites the limitations "The methodology" and "the algebraic properties" in 8. There is insufficient antecedent basis for these limitations in the claim.

Also, regarding claim 9, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

12. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: a series of actions for array shape inteferencing.

**Claim Rejections - 35 USC § 102 or 35 USC § 103**

13. In view of the USC 35 112/101 rejections as set forth above, <sup>penalful search</sup> ~~a complete action~~ <sub>of claim 1</sub> cannot be given at the time of examination due to the informal or insufficient disclosure. <sup>on the disclosure</sup> However, a ~~reasonable~~ <sup>reasonable</sup> search has been made of the invention so far as it can be understood from the disclosure, objects of invention and claims and any apparently

pertinent art cited. The disclosure should be revised to render it in proper form for a complete examination. The informalities should be corrected to the extent that the disclosure is readily understood and the claims are in proper form, particularly as to dependency, and otherwise clearly define the invention. "New matter" must be excluded from these amendments. See MPEP § 608.04(b).

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Insun Kang whose telephone number is 703-305-6465. The examiner can normally be reached on M-F 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on 703-305-9662. The fax phone number for the organization where this application or proceeding is assigned is 703-308-3988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

IK  
2/2/2004



TODD INGBERG  
PRIMARY EXAMINER